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The Benefits of a Simplified Communication Solution from VoIP



Simplifying a complicated procedure is a sure way to get ahead. An enterprise's

communication system can be extremely complicated with everything a business needs out of it. Voice over Internet Protocol, aka VoIP, is a solution that can simplify your entire communications system. Simplifying something major like communication will benefit your business in many ways.



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About Total Networks

Building on the tradition of providing industry best solutions, the Kinseys continue to invest in tools, training, recruiting, and procedures, continuing to extend our reputation as the premier IT service provider in Arizona.

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Total Networks Implements Cutting Edge Technology at Historic House Office



Carpenter Hazlewood Delgado & Bolen, PLC is a full service 60-person law firm serving non-profit, business and individual clients operating in Phoenix, Tucson, Prescott, Albuquerque and Santa Fe. The firm merged with attorney Tanis Duncan on December 1st, increasing the size of the Tucson office to two attorneys and five support staff. The merger brings additional local Tucson experience to the firm, and provides the satellite office with the resources of the larger parent company.

The Tucson office is a beautiful historic home, which at first was lacking modern technology essentials. Total Networks helped upgrade the office technology needed to effectively collaborate and communicate with the main office in Tempe. The upgrades included metro Ethernet and other circuit improvements, installation of a phone system server to integrate with the firm's VoIP system, printer and copier setup, wireless access and firewall upgrades.

Managing Partner Scott Carpenter and his colleagues at the firm have a strong commitment to efficient and effective technology, which is on display to clients and prospects during the

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The Time to Upgrade Windows Server 2003 is Now



By now, you have hopefully heard about Windows XP being no longer supported by Microsoft come April, but what you may have missed is that there's another popular Windows OS, Windows Server 2003, that's also set to expire relatively soon. July 14, 2015 is the end of support date for Windows Server 2003. Have you made plans to upgrade?

If your business is running Windows Server 2003, then you're in the same situation as the majority of companies. Due to the system's popularity, Microsoft has quite the year ahead of them to convince businesses to upgrade from Win-

dows Server 2003. Hopefully, they have learned a few things from their recent campaign to get XP users to upgrade.

The Windows Server 2003 Landscape

There is an estimated 12-to-13 million machines currently running Windows Server 2003. To put this number into perspective, Windows Server 2003 runs 55% of Windows Servers in production. With most of the focus on upgrading being spent on Windows XP, most businesses have upgraded, or they are making plans to upgrade, their workstation's OS from XP (90% for large businesses). This sense of urgency has yet to spread to organizations' server units. A survey by Fortune 5000 IT found that only 25% of companies have plans to upgrade Windows Server 2003 by the "death date." If you've not yet made plans to upgrade for your business, then now is the time to start.

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regular seminars held at their offices. Covering a wide range of topics, the seminars have both a live audience and are streamed via the internet to remote attendees. An impressive library of seminars is posted on the firm's website for easy access. The upgrades at the Tucson office allow the attorneys there to seamlessly participate in the seminars.

When Carpenter Hazlewood decided to outsource their technology service to Total Networks in early 2012, the firm's technology was already solid and very

innovative. Total Networks was tasked with taking the firm's technology to the next level. Mr. Carpenter's direction was very clear: "You have a standing order to continue to research and propose items that are the best for the firm."

Taking this direction to heart, Total Networks immediately went to work facilitating improvements to secure remote access, webinars, overall system performance, stability and security through a series of cost-effective upgrades. And while the firm is happy with the results, Total Networks continually evaluates the

latest technology advancements, tests them internally and recommends proven technologies in a planned, controlled manner.

Using technology to seamlessly collaborate among the all their office locations is one way Carpenter Hazlewood provides top-notch customer service and gains a competitive advantage.



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4 Important Considerations to Make When Shopping for a Server



Due to the irreplaceable nature of data, server units may be your company's most important assets. Therefore, when it comes time to

purchase a new server, you will want to make sure that your new unit will be exactly what your business needs. Getting a model that's too small or too powerful can be costly. Here's what to look for when purchasing a new server.

Consider Your Company's Needs

The temptation is to go with a server that's on sale or the first one you come across, but if you don't match up the new unit with your needs, then you will pay for it by losing productivity. Knowing what the computing needs are for your business will go a long way in picking out the right server. For example, you will want to consider what roles your servers will be laying and what applications you are going to be using on a day-to-day basis.

If you're primarily using your servers to host mission-critical business applications and databases, then you will want a powerful and high-end server loaded with extra CPU. If on the other hand you plan on using your server for more virtu-

alization-related uses, then you will want to invest in a unit that has extra memory and input/output. This way, you can make a reliable connection between your terminals and your direct-access storage device, which will cause less downtime due to lag.

Consider All the Costs

Unlike other pieces of equipment in your office, like your refrigerator or your PC monitors, your server units will rack up significant maintenance costs that you need to be aware of before picking one out. Doing things like understanding how much electricity your new server will use and what that will add up to on a monthly basis, will help you in making an accurate budget. Having this knowledge will make sure that you're not surprised by any unforeseen operational expenses related to your IT infrastructure. One server solution that will save you on utilities is to go with a unit designed to consume less power. An energy efficient server may cost you extra, but you will see the savings add up every month that you use it.

Other expenses that accompany a new server are software and software licensing, a data backup and security solution, cabling, cooling, rack space, uninterruptible power supply and much more. You can see why a server unit shouldn't be

treated as a casual purchase. There are also additional expenses involved with getting it installed and keeping it running, which is why it's important that you consult with a technology professional before you begin server shopping. The technicians at Total Networks know servers very well. We will be happy to discuss with you the needs of your business and the extra expenses associated with a new server unit. This way, you will end up with the perfect model that won't bust your budget.

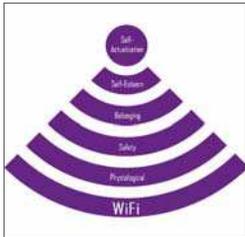
Consider Even the Future Costs

Technology goes through cycles and old models are eventually made obsolete by new ones. You will want to be aware of these technology cycles when you are server shopping. For example, let's say that you go with an inexpensive unit after determining that it meets your current computing needs. This is all fine and good for the here and now, but what about the future?

You may have gotten such a good deal on the server because its processor chip-set is on the downward side of the technology cycle. It may also be the case that new applications your business will need may require the newer chips, which would leave you needing to upgrade your new server just to use it. Avoiding

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Is Fast WiFi the Most Basic of Human Needs?



In 1943, psychologist Abraham Maslow published a paper about human motivation that would become the well-known

Maslow's Hierarchy of Needs. His theory states that before self-actualization can be achieved, four needs must first be met, like esteem, belonging, safety, and physiological (the most basic which includes, air, food, water, etc.). In 2014, we feel the need to add one more layer to Maslow's pyramid: WiFi.

In actuality, humans probably don't need WiFi more than breathable air, but it is a reality that technology users need access to a reliable WiFi connection in order to check notifications from their favorite websites. Before these users can come up with the psychological fortitude to get any work done, much less arrive at self-actualization, they need to check these

notifications via WiFi. Yep, we're addicted to the Internet. This WiFi dependent condition has the feel of a physiological disorder, and if Maslow were alive today, he would prescribe a remedy that would satisfy this most fundamental need of modern patients, faster WiFi.

The benefits of a faster Internet connection for any business will help to actualize greater profits. For example, the promise of a faster Internet is why many startup entrepreneurs flocked to Kansas City when Google announced in 2011 that the Midwestern city would be the testing ground for its new Google Fiber service, which is a fiber-to-the-premises service that offers customers Internet speeds of 1 Gbit/s. Those of us without Google Fiber can only daydream about all of the projects that can be accomplished with a 1 Gbit/s Internet connection, especially via WiFi.

Many of us may have less than 100 Mbps of upload and download speeds

for our office, which is adequate for basic tasks such as Internet browsing and email on your mobile device, but for enterprises with more ambitious mobile plans, they will want to take advantage of cloud services for hosting business applications and storing data. Cloud computing gives everyone on your staff wireless access to mission-critical applications via the cloud from mobile devices, which will improve your company's mobility, productivity, and profitability. If your company's WiFi signal is weak, then you will be limited by how many wireless solutions like cloud computing your business can take advantage of.

Currently, the fastest wireless router on the market is 802.11ac. This has an advertised speed of 1.3 Gbps, which means that the actual working speed is more like 400-to-800 Mbps. For all practical purposes, that's fast; much faster than the routers of just a few years ago. However, even a fast signal like 802.11ac can

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The Time to Upgrade Windows Server 2003 is Now

Why Should I Upgrade?

The need to upgrade your server OS is no different than the need to upgrade your desktop OS. When software manufacturers stop releasing security patches, hackers then step in and have a field day with the outdated software's vulnerabilities. This is true for all software, and it's especially true for operating systems because they affect every application running on it. What's more, the security of your server units OS should be given extra priority because they are hosting your company's most critical applications and sensitive information.

What are Your Options?

Upgrading your server's OS is a solid course of action. Two systems that you can upgrade to are Windows Server 2008 R2 and Windows Server 2012. There are notable differences between the two operating systems. You can call Total Networks at (602)412-5025 to find out

which one best fits the unique needs of your company. We will ask pertinent questions to determine your needs and we can even do the work of upgrading for you.

Another option that you have is to take the business applications running on your old server unit and migrate them over to the cloud. Cloud computing has come a long way since Windows Server 2003 was first released; it has now become a secure and economical solution for businesses. By moving your company's applications to the cloud, you will save money on overhead, be able to access your files from anywhere, have the option to redundantly backup your data, and even gain the option to get rid of your server units entirely.

With Windows Server 2003 set to expire in 2015, now is the ideal time to transition to the cloud. This is because it's

recommended that you swap out your old server unit for a new one every five years due to the deterioration of the disk drive. There's a pretty good chance that if your server unit is running Windows Server 2003, then it's at least five years old, and it will be even older and at even greater risk of failing come 2015.

If you're scheduled to upgrade your server unit's hardware and operating system, then you owe it to your business to consider cloud computing as an alternative to buying new hardware. To learn more about upgrading your server's OS, or upgrading any other of your company's technology, give Total Networks a call at (602)412-5025.



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Is Fast WiFi the Most Basic of Human Needs?

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still experience strain from a medium-sized company where multiple employees are participating in web conferences on their mobile devices. The next generation of Wi-Fi technology is on the way and it promises to ramp up speeds by as much as 10 times the current 802.11ac routers!

We're talking WiFi data rates of up to 7 Gbps in the 5 GHz band with IEEE 802.11ac-2013. According to IEEE, 802.11ac-2013 "adds channel bandwidths of 80 MHz and 160 MHz with both contiguous and non-contiguous 160 MHz channels for flexible channel assignment." This is technical talk to say that

broader channels are being used to deliver data faster.

One of the ways that this ludicrous speed is achieved is with new Beamforming Technology, which concentrates the WiFi signal into a direct beam to the device, instead of sending out the signal in a broad circular pattern. To ensure that there is no wireless traffic jams from multiple devices, IEEE has a new technology that supports "multiple concurrent down-link transmissions, referred to as 'multi-user multiple-input, multiple-output' (MU MIMO). By using smart antenna technology, MU MIMO enables more efficient spectrum use, higher system capacity and

reduced latency by supporting up to four simultaneous user transmissions. This is particularly useful for client devices with a limited number of antennas, such as smartphones and tablets."

This 802.11ac-2013 technology is predicted to be released by the end of 2014, and Bruce Kraemer, chair of the IEEE 802.11 working group, expects it "to help users' transition application from fixed links to the convenience, freedom, and versatility of wireless links." In short, faster is better, and faster wireless signal is will allow your ...



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We work together with our IT Managed Services clients to jointly create and maintain an up-to-date, effective written technology plan and budget.

Regular, proactive communication and planning is a key factor that distinguishes Total Networks.



Dave Kinsey
President

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expensive issues like this is called "future proofing" your technology. The best way to achieve this is to be familiar with the technology trends in the IT industry so that you won't get stuck with a lemon of a server. This is yet another way that consulting with Total Networks for your technology purchases will help your business succeed.

Consider Server Maintenance
Last but not least, you will

want to consider the maintenance expense of your new server. Even the best server units are not guaranteed to last forever and will require maintenance. If the server maintenance is left to only when the server crashes, then your maintenance cost will be sporadic and impossible to budget around. However, if your servers are remotely maintained with Total Networks's managed IT service (which includes break-fix repairs at a flat rate), then you

will have a consistent budget as well as servers running at an optimal level. This will minimize downtime caused by problems with servers, which will add to your bottom line!

To receive help finding and maintaining the perfect server for your business, give us a call at (602)412-5025.



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